## Maryland

## Title 26 Department of the Environment

## Subtitle 08 Water Pollution

26.08.03.00. Title 26 DEPARTMENT OF THE ENVIRONMENT Subtitle 08 WATER POLLUTION Chapter 03 Discharge Limitations Authority: Environment Article, §9-313—9-316, 9-319, 9-320—9-325, and 9-328, Annotated Code of Maryland

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26.08.03.01. 01 Effluent Limitations.. A. Prohibited Discharges. The following discharges to the waters of this State are prohibited:. 1) The discharge of any waters in excess of 10,000 gallons per day, as a monthly average, or the discharge of any wastes or waste waters regardless of volume, unless:a) Authorized by a discharge permit, or. b) Subject to control or modification required by a schedule of compliance established by this State;

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26.08.03.02. 02 Use of Toxic Substances for Aquatic Life Management Purposes.. A. Scope. Any person who adds toxic substances to the waters of this State for aquatic life management purposes shall be governed by this regulation.B. Restrictions on Use.. 1) Toxic substances may not be applied to, discharged to, or deposited in the waters of this State in any way unless:a) The application, discharge, or deposit meets all of the requirements imposed by this regulation; and

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26.08.03.03. 03 Water Quality Impact Assessment for Thermal Discharges.. A. Purpose. This regulation specifies procedures for compliance with Maryland water quality standards for thermal discharges and describes the factors, criteria, and standards for the establishment of alternate thermal effluent limitations under the Federal Act, §316(a) in permits issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland, and this chapter.B. Definition. For purpos

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26.08.03.04. 04 Representative Important Species.. Representative important species (RIS) are those species selected by the applicant and approved by the Department that exhibit one or more of the following characteristics:A. Species that are sensitive to adverse harm from operations of the facility (for example, heat-sensitive species)B. Species that use the local area as spawning or nursery grounds, or both, including those species that migrate past the facility to spawn;

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26.08.03.05. 05 Cooling Water Intake Structures.. A. The location, design, construction, and capacity of cooling water intake structures shall reflect the best technology available (BTA) for minimizing adverse environmental impact.B. The determination of BTA for minimizing adverse environmental impact shall consider the effect of:1) Impingement loss as determined in § D of this regulation; and. 2) Entrainment loss as determined in § E of this regulation.. C. Unless otherwise direc

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26.08.03.06. 06 Chlorine Discharges.. A. Biocide Residual Levels. Biocide residual levels shall be controlled in the effluents discharged to all surface waters of this State.B. Use Designations III and III-P.. 1) Except as provided in § B(2) of this regulation, the Department may not issue a permit allowing the use of chlorine or chlorine-containing compounds in the treatment of wastewaters discharging to Use III and Use III-P waters.2) Chlorine or chlorine-containing compounds may b

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26.08.03.07. 07 Control of the Discharge of Toxic Substances to Surface Waters.. A. General.. 1) The Department shall adopt toxic substance criteria for any substance that the Department determines could reasonably be expected to interfere with designated uses.2) If a discharge of a toxic substance not identified in COMAR 26.08.02 occurs, the Department may:. a) Adopt a water quality criterion for the toxic substance in accordance with the emergency regulation procedure under State

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26.08.03.08. 08 Remining.. A. Purpose. This regulation establishes the criteria under which the Department shall determine:. 1) That an application for a coal remining NPDES permit has the potential to improve water quality as required under §301 of the Federal Water Pollution Control Act (33 U.S.C. §1311)2) If an applicant for an NPDES permit to discharge pollutants from coal remining qualifies for a variance from the State water quality standards; and3) The appropriate efflue

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26.08.03.9999. Administrative History Effective date: September 1, 1974 (1:1 Md. R. 33). COMAR 10.50.01.05, .06, and .13 recodified to COMAR 26.08.03.01, .02, and .03, respectively. Regulation .01 amended effective November 5, 1984 (11:22 Md. R. 1899). Regulation .02 amended effective November 5, 1984 (11:22 Md. R. 1899). Regulation .02C amended effective May 18, 1979 (6:10 Md. R. 841). Regulation .03 adopted effective May 19, 1978 (5:10 Md. R. 777) —.

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# Title 26 DEPARTMENT OF THE ENVIRONMENT

## Subtitle 08 WATER POLLUTION

### Chapter 03 Discharge Limitations

**Authority: Environment Article, §§9-313—9-316, 9-319, 9-320—9-325, and 9-328, Annotated Code of Maryland**

## 26.08.03.01 Effluent Limitations.

A. Prohibited Discharges. The following discharges to the waters of this State are prohibited:

(1) The discharge of any waters in excess of 10,000 gallons per day, as a monthly average, or the discharge of any wastes or waste waters regardless of volume, unless:

(a) Authorized by a discharge permit, or

(b) Subject to control or modification required by a schedule of compliance established by this State;

(2) The discharge of any pollutant in toxic amounts including:

(a) Substances which accumulate to toxic amounts during the expected life of organisms in the surface water, or

(b) Substances which produce deleterious behavioral effects on the organisms;

(3) The discharge of any radiological, chemical, or biological warfare agent;

(4) The discharge of any high level radioactive waste;

(5) Any discharge which would substantially impair anchorage and navigation;

(6) Any discharge to which the Administrator of the Environmental Protection Agency has objected in writing under the Federal Act;

(7) Any discharge which is in conflict with a plan approved by this State;

(8) The discharge of sewage from vessels while moored, berthed, or docked in waters of this State except through a federally and State-approved marine sanitation device;

(9) The discharge of sewage or other wastes from vessels to the waters of Deep Creek Lake in Garrett County, Maryland; and

(10) The discharge of sewage from vessels to the waters of this State, designated as restricted zones. These zones shall be designated:

(a) Wherever greater environmental protection and enhancement is required, and

(b) According to the procedures outlined in the Federal Act.

B. The following areas of the waters of the State are designated as no discharge zones, where the discharge of sewage from vessels is prohibited:

(1) The Herring Bay no discharge zone which encompasses all tidal waters of Herring Bay and its tributaries westerly of a line beginning at a point at or near Holland Point defined by Lat. 38° 43' 34.9" N., Long 76° 31' 37.3" W., then running approximately

352° (true) to a point at or near Crab Pile A defined by Lat. 38° 46' 33.0" N., Long. 76° 32' 10.1" W., then running approximately 354° (true) to a point at or near the north shore of Parker Creek defined by Lat. 38° 46' 39.1" N., Long. 76° 32' 10.8" W; and

(2) The Northern Coastal Bays no discharge zone which encompasses all the tidal waters of Ocean City Inlet, Sinepuxent Bay, Isle of Wight Bay, Assowoman Bay, and their tributaries, upstream (West) of a line beginning at a point at or near the east end of the north Ocean City Inlet jetty, defined by Lat. 38° 19' 27.0" N., Long. 75° 05' 5.5" W., then running approximately 248° (true) to a point at or near the east end of the south Ocean City Inlet jetty, defined by Lat. 38° 19' 20.7" N., Long. 75° 05' 24.8" W., and north of a line across the north end of Sinepuxent Bay beginning at a point at or near the southeast entrance of the Ocean City commercial fish harbor (Swordfish Basin) defined by Lat. 38° 19' 37.0" N., Long. 75° 6' 6.0" W., then running approximately 110° (true) to a point at or near the shore at the northwest tip of Assateague Island defined by Lat. 38° 19' 32.0" N., Long. 75° 05' 49.0" W., and south of the Maryland-Delaware line beginning at a point at or near the east side of Assowoman Bay defined by Lat. 38° 27' 4.5" N., Long. 75° 04' 11.2" W., then running approximately 270° (true) to a point at or near the west side of Assowoman Bay defined by Lat. 38° 27' 4.4" N., Long. 75° 05' 09.3" W.

C. Controlled Discharges.

(1) Discharge Permitted. The discharge of waters, wastes, or wastewaters to the waters of this State is permitted if:

(a) The discharge does not contravene the surface water quality standards established by this State to protect legitimate beneficial water uses;

(b) The discharge complies with the discharge permit requirements for:

(i) Effluent limitations,

(ii) Schedules of compliance, and

(iii) The use of the best available technology;

(c) The discharge is authorized by a discharge permit subject to conditions and restrictions imposed in the permit; or

(d) The discharge is:

(i) Dredge spoil resulting from an effluent returning to the waters of this State from an approved dredge spoils disposal area,

(ii) Material excavated from the sediments underlying surface waters and placed in another part of the water, or

(iii) Material placed in suspension in the water as part of a dredging or construction project authorized by the Department.

(2) Best Available Technology.

(a) Before establishing effluent limitations for any point source, the Department shall give careful consideration to necessary and practicable effluent limitations to achieve compliance with surface water quality standards (COMAR 26.08.02.01-.08) or ground water quality standards (COMAR 26.08.02.09). This consideration shall include:

(i) Information provided as part of the discharge permit application;

(ii) Information available from discharge permit monitoring reports; and

(iii) Any other information provided by the applicant or required by the Department.

(b) Best available technology shall be required as the minimum for all permitted discharges. If it is determined that compliance with the established water quality standards will not be achieved through BAT, additional treatment shall be:

(i) Required; and

(ii) Based on waste load allocation.

(3) Nutrient Control. This State recognizes that certain surface waters of this State are eutrophic or are approaching eutrophic conditions. All discharges to these surface waters shall be treated as necessary to reduce eutrophic effects. This State shall require that wastewaters containing nutrients which cause or contribute to eutrophication be:

(a) Given advanced waste treatment before discharge;

(b) Disposed of by spray irrigation on land; or

(c) Disposed of by other practicable procedures which will avoid direct discharge to surface waters.

(4) Use of Material Balance.

(a) The Department may require that the operator of the facility involved conduct a material balance with the accuracy and precision necessary to account for environmentally significant losses of material in any instance when:

(i) Pollution of the waters of this State is likely to occur as a result of discharge or loss of toxic substances; or

(ii) The Department determines the need for materials control to prevent water pollution.

(b) If a material balance is required, the Department shall review and approve:

(i) The procedure to be used;

(ii) The frequency of the determinations;

(iii) The units of measurements;

(iv) The methods of calculations, management, and record; and

(v) Any other specific requirements considered necessary.

(c) Information developed by the operator of a facility as a consequence of making a material balance shall be made available to the Department of the Environment on demand.

## 26.08.03.02 Use of Toxic Substances for Aquatic Life Management Purposes.

A. Scope. Any person who adds toxic substances to the waters of this State for aquatic life management purposes shall be governed by this regulation.

B. Restrictions on Use.

(1) Toxic substances may not be applied to, discharged to, or deposited in the waters of this State in any way unless:

(a) The application, discharge, or deposit meets all of the requirements imposed by this regulation; and

(b) Approval is given in accordance with this regulation.

(2) The mixing, handling, or transfer of toxic substances or the washing of or cleaning operations for toxic substance containers or equipment may not result in any way in:

(a) Application to the waters of this State;

(b) Discharge to the waters of this State;

(c) Deposition in the waters of this State.

(3) Wastes and wastewaters from the washing of toxic substance containers or equipment may not be discharged to or permitted to flow into:

(a) Subsurface drainage or disposal systems;

(b) Municipal sanitary sewerage systems; or

(c) Storm water drainage systems.

(4) The toxic substances used shall be adequately controlled and sufficiently selective so as not to adversely affect:

(a) Desirable species of aquatic life in the designated areas to be treated; or

(b) Any aquatic life outside the designated area to be treated.

C. Procedure for Obtaining Approval.

(1) Permits for the use of toxic substances in the waters of this State shall be requested from the Department at least 30 days before the initiation of every aquatic life management project employing the application, discharge, or deposit of toxic substances.

(2) Application for permit shall include the following information for each project:

(a) The purpose of the project;

(b) A description and maps or drawings of the area involved;

(c) A description of the watershed upstream and downstream from the project, or the tidal area around the project;

(d) A description of the toxic substance to be used;

(e) A description of the method of application;

(f) Name, title, and address of the person in charge of the project;

(g) A description of safeguards to be used;

(h) The approximate dates of the project operation;

(i) A statement outlining methods to be used in the cleanup of the area following the application, discharge, or deposit of the toxic substances; and

(j) Any other information the Department of the Environment requires for the proper evaluation of the project.

(3) The Department of the Environment may authorize the Chairman of the Soil Conservation District, or his designee approved by the Department to issue an emergency permit for use of toxic substances for aquatic life management purposes. These emergency permits shall only be issued in accordance with the following guidelines:

(a) An emergency permit shall only be issued when, in the opinion of the Soil Conservation District (SCD) representative, a situation exists which requires rapid or immediate attention to prevent:

(i) Degradation of water quality; or

(ii) Development of a situation requiring more extensive treatment at a later date.

(b) Emergency permits shall:

(i) Be restricted to a maximum of two applications of a toxic substance; and

(ii) Only authorize use of copper sulfate, cutrine or diquat, unless specific written authorization is received from the Department.

(c) An emergency permit form provided by the Department shall be used for issuance of emergency permits. A copy of the executed permit shall then be forwarded to the Department.

(d) Emergency permits may only be issued during the time period from May 1 to September 30.

(e) Emergency permits may not be issued if the pond or body of water is tributary to a public water supply, or tributary to shellfish waters.

## 26.08.03.03 Water Quality Impact Assessment for Thermal Discharges.

A. Purpose. This regulation specifies procedures for compliance with Maryland water quality standards for thermal discharges and describes the factors, criteria, and standards for the establishment of alternate thermal effluent limitations under the Federal Act, §316(a), in permits issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland, and this chapter.

B. Definition. For purposes of this regulation only, "significant" means having a statistically measurable effect beyond the mixing zone.

C. Control of Thermal Discharges.

(1) The mixing zone for thermal discharges shall be 50 feet radially from the point of discharge.

(2) The Department may establish a mixing zone of different size or shape on a case-by-case basis.

(3) Thermal discharges shall be controlled so that the:

(a) Temperature outside the applicable mixing zone meets the applicable water quality criteria specified in COMAR 26.08.02.03-3; or

(b) Discharges comply with the thermal mixing zone criteria in §D of this regulation.

(4) Request for Alternate Thermal Effluent Limitations.

(a) Dischargers who are unable to meet the requirements of either §C(3)(a) or (b) of this regulation may request alternate thermal effluent limitations as provided in §E of this regulation.

(b) A new request for alternate thermal effluent limitations shall be made within 180 days of notification by the Department that the discharger's thermal discharge cannot assure protection of a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. This request shall include a completed demonstration or a study plan for a demonstration to show compliance with §E of this regulation.

(c) A request for renewal of alternate thermal effluent limitations shall be made at the same time that the application for the renewal of the existing State discharge permit is made. This request for the renewal of existing alternate thermal effluent limitations shall include a summary of the basis for granting the alternate thermal effluent limitations and subsequent data, if any, to show that the thermal discharge effluent limitations are more stringent than necessary to protect a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. In addition, the application shall provide any other pertinent information which the Department requests within 60 days after receipt of the permit application.

(5) Alternate effluent limitations are approved only for the term of a specific State discharge permit. When renewing that State discharge permit, the discharger shall be prepared to demonstrate that continuation of the alternate effluent limitations is appropriate.

D. Thermal Mixing Zone Criteria.

(1) Requirements for Discharges to Tidal Waters.

(a) The 24-hour average of the maximum radial dimension measured from the point of discharge to the boundary of the full capacity 2°C above ambient isotherm (measured during the critical periods) may not exceed 1/2 of the average ebb tidal excursion.

(b) The 24-hour average full capacity 2°C above ambient thermal barrier (measured during the critical periods) may not exceed 50 percent of the accessible cross section of the receiving water body. Both cross sections shall be taken in the same plane.

(c) The 24-hour average area of the bottom touched by waters heated 2°C or more above ambient at full capacity (measured during the critical periods) may not exceed 5 percent of the bottom beneath the average ebb tidal excursion multiplied by the width of the receiving water body.

(2) Requirements for Discharges to Nontidal Waters.

(a) The distance downstream from the point of discharge to the 24-hour average 2°C above ambient isotherm at full capacity may not exceed the distance traveled in 6 hours by the receiving stream. Both distances shall be measured during the critical periods.

(b) The 24-hour average full capacity 2°C above ambient thermal barrier (measured during the critical periods) may not exceed 50 percent of the accessible cross section of the receiving body. Both cross sections shall be taken in the same plane.

(c) The area of the bottom touched by waters heated 2°C or more above ambient at full capacity may not exceed 5 percent of the stream bottom passed over by the stream flowing for 6 hours. Both areas shall be measured during the critical periods.

E. Establishment of Alternate Effluent Limitations.

(1) Thermal discharge effluent limitations or standards established in permits may be less stringent than those required by applicable standards and limitations if the discharger demonstrates to the satisfaction of the Department that the effluent limitations or standards are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. This demonstration shall show that the alternate effluent limitation desired by the discharger, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, including impingement and entrainment impacts, will assure the protection and propagation of a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made.

(2) In determining whether the protection and propagation of the affected species will be assured, the Department may consider any information contained or referenced in any applicable thermal water quality criteria and thermal water quality information published by the Environmental Protection Agency under the Federal Act, §304(a), or any other information considered relevant by the Department. The demonstration shall include evidence for the lack of the following factors:

(a) A significant increase in abundance or distribution of any species considered to be nuisance species by the Department of the Environment;

(b) A significant change in biological productivity;

(c) A significant elimination or impairment of economic and recreational resources; and

(d) A significant reduction in the successful completion of the life cycle of representative important species (RIS).

(3) Existing dischargers may base their demonstration upon the absence of prior appreciable harm instead of predictive studies. Demonstrations shall show that:

(a) Appreciable harm has not resulted from the thermal component of the discharge, taking into account the interaction of the thermal component with other pollutants and the additive effect of other thermal sources, to a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge has been made; or

(b) Despite the occurrence of the previous harm, the desired alternate effluent limitations, or appropriate modifications of them, will nevertheless assure the protection and propagation of a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made.

(4) In determining whether prior appreciable harm has occurred, the Department shall consider the length of time in which the applicant has been discharging and the nature of the discharge.

(5) If a discharger fails to demonstrate that existing facilities, or alternate effluent limitations together with all other impacts, will assure the protection and propagation of a balanced indigenous population of shellfish, fish, other aquatic life, or wildlife in and on the receiving water, then the discharger shall make changes in facility processes or operations, or both, sufficient to assure the protection and propagation of a balanced indigenous population of shellfish, fish, other aquatic life, or wildlife in and on the receiving water.

## 26.08.03.04 Representative Important Species.

Representative important species (RIS) are those species selected by the applicant and approved by the Department that exhibit one or more of the following characteristics:

A. Species that are sensitive to adverse harm from operations of the facility (for example, heat-sensitive species);

B. Species that use the local area as spawning or nursery grounds, or both, including those species that migrate past the facility to spawn;

C. Species of commercial or recreational value, or both;

D. Species that are habitat formers and are critical to the functioning of the local ecosystem;

E. Species that are important links in the local food web;

F. Rare, threatened, or endangered species;

G. Potential nuisance organisms likely to be enhanced by plant operations.

## 26.08.03.05 Cooling Water Intake Structures.

A. The location, design, construction, and capacity of cooling water intake structures shall reflect the best technology available (BTA) for minimizing adverse environmental impact.

B. The determination of BTA for minimizing adverse environmental impact shall consider the effect of:

(1) Impingement loss as determined in § D of this regulation; and

(2) Entrainment loss as determined in § E of this regulation.

C. Unless otherwise directed by the Department, cooling water intake structures withdrawing less than 10,000,000 gallons per day from surface waters are excluded from the requirements of this regulation if the volume of water is less than 20 percent of the:

(1) Design stream flow for nontidal waters; or

(2) Annual average net flow past the point of discharge which is available for dilution for tidal waters.

D. Determination of Impingement Loss.

(1) The value of the impingement species destroyed by the intake structure shall be determined by estimating the number of each species destroyed and multiplying by the values listed in COMAR 08.02.09.01. These factors shall be weighted by multiplying by the following adjustment factor: Species Function Factor

(a) Recreational only ---------- 1.0;

(b) Commercial and recreational ---------- 1.0;

(c) Commercial only ---------- 1.0;

(d) Commercial, recreational, and forage ---------- 0.8;

(e) Commercial and forage ---------- 0.75;

(f) Recreational and forage ---------- 0.75;

(g) Forage ---------- 0.75.

(2) Dischargers shall install and operate functional modifications to mitigate impingement loss, provided that the additional cost of installation of modifications to intake structures and of operation modifications over a 5-year period does not exceed 5 times the estimated annual value of impingement loss. These approved modifications shall be defined as BTA under § B(1) of this regulation.

E. Determination of Entrainment Loss.

(1) Definition. For purposes of this regulation only, "significant" means having a statistically measurable effect beyond the mixing zone.

(2) The discharger shall determine the extent of cooling water entrainment loss on a spawning or nursery area of consequence for RIS as defined in Regulation .04 of this chapter.

(3) If entrainment loss results in significant adverse environmental impact, the discharger shall install and operate functional modifications to mitigate entrainment loss. These approved modifications shall be defined as BTA under § B(2) of this regulation.

## 26.08.03.06 Chlorine Discharges.

A. Biocide Residual Levels. Biocide residual levels shall be controlled in the effluents discharged to all surface waters of this State.

B. Use Designations III and III-P.

(1) Except as provided in § B(2) of this regulation, the Department may not issue a permit allowing the use of chlorine or chlorine-containing compounds in the treatment of wastewaters discharging to Use III and Use III-P waters.

(2) Chlorine or chlorine-containing compounds may be used in the treatment of wastewaters discharged to Use III and Use III-P waters if the treatment includes dechlorination to a level set by the Department, and if the sewage treatment facility:

(a) Discharges an amount of treated sewage that is less than 1 percent of the 7-day, 10-year low flow of the receiving stream; or

(b) Was in existence on July 1, 1981, is owned or operated by a local subdivision, is required to convert from the use of chlorination to another system in order to be permitted under this regulation, and matching federal funds are not available to make the conversion.

(3) When an effluent discharged to a Use III or Use III-P water contains chlorine or chlorine-containing compounds which did not originate in the treatment of wastewater, the Department shall require dechlorination, where appropriate, to a level established under §D of this regulation.

C. All Other Water Use Designations. A person may not discharge any chlorine or chlorine products into Use I, I-P, II, IV, or IV-P waters of this State in excess of the limits set forth below:

(1) For steam electric power stations using once-through cooling water from plants with total rated generating capacity of 25 or more megawatts, the limit shall be 0.2 milligram/liter daily maximum of total residual chlorine as determined using the amperometric titration method;

(2) For steam electric power stations using once-through cooling water from plants with total rated generating capacity of less than 25 megawatts, the limit shall be 0.2 milligram/liter monthly average and 0.5 milligram/liter daily maximum of free available chlorine as determined using the amperometric titration method;

(3) The limit for cooling tower blowdown from steam electric generating plants shall be 0.2 milligram/liter monthly average and 0.5 milligram/liter daily maximum of free available chlorine as determined using the amperometric titration method;

(4) For any other discharge category for which the EPA has published effluent limitation guidelines, the limit shall be the limits specified in the published guidelines;

(5) For all other dischargers, including sewage treatment works, the limit shall be the nondetectable level.

D. Nondetectable Level. The nondetectable level shall be less than 0.1 milligram/liter as determined using either the DPD titrimetric or colorimetric method or an alternative method approved by the Department.

E. Natural Constituents. The Department may make an exception to the requirements of this regulation if the chlorine or chlorine products are natural constituents of the intake water.

F. Dechlorination. Dechlorination may be accomplished by:

(1) Chemical addition;

(2) Absorption onto activated carbon;

(3) Control of discharge rates or holding of the effluent so that chlorine residuals are reduced to the nondetectable level; or

(4) Any other method approved in advance by the Department.

## 26.08.03.07 Control of the Discharge of Toxic Substances to Surface Waters.

A. General.

(1) The Department shall adopt toxic substance criteria for any substance that the Department determines could reasonably be expected to interfere with designated uses.

(2) If a discharge of a toxic substance not identified in COMAR 26.08.02 occurs, the Department may:

(a) Adopt a water quality criterion for the toxic substance in accordance with the emergency regulation procedure under State Government Article, Annotated Code of Maryland;

(b) Ban the discharge of the toxic substance under the general authorities in Environment Article, Title 9, Annotated Code of Maryland;

(c) Modify any existing discharge permit to include a limitation for the toxic substance, or deny any new discharge permit until the Department determines the effect of the discharge;

(d) Require biomonitoring and chemical testing by any discharger to demonstrate the impact of a toxic substance in the surface water; or

(e) Take any other action permitted by applicable law.

(3) Compliance with permit limits based on toxic substance criteria shall be determined through application of a standard method accepted by the Department for the measurement of the toxic substance.

B. Effluent Limitation Modification for Toxic Substances.

(1) The Department may, upon written application from the applicant for a discharge permit, grant a temporary modification from one or more effluent limitations based on water quality criteria for toxic substances.

(2) A temporary modification may be granted for a period up to 3 years.

(3) In order to receive any temporary modification of a water quality based effluent limit, an applicant shall identify and employ all reasonable alternatives to reduce or eliminate toxicity in the discharge, including process changes, materials substitution, improved operation and maintenance, recycling, and pollution prevention activities.

(4) At the time of application for a temporary modification, the applicant shall provide to the Department all the necessary supporting data and information. If the Department needs additional information, the applicant shall bear the burden of generating that information.

(5) An application for a temporary modification shall identify the specific effluent limitation in the NPDES permit for which a temporary modification is sought, and shall demonstrate that at least one of the following factors is met:

(a) Naturally occurring pollutant concentrations prevent the attainment of the use;

(b) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met;

(c) Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied, or would cause more environmental damage to correct than to leave in place;

(d) Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate these modifications in a way that would result in the attainment of the use;

(e) Physical conditions related to the natural features of the water body, such as the lack of proper substrate, cover, flow, depth, pools, riffles, and similar conditions unrelated to water quality, preclude attainment of aquatic life protection uses; or

(f) Controls more stringent than those required by § 301(b) and 306 of the Federal Act would result in substantial and widespread economic and social impact.

(6) A temporary modification may be renewed for one or more periods up to 3 years each, upon written application and demonstration that the applicant meets the requirements for a temporary modification at the time of renewal.

(7) Opportunity for public participation shall be provided in accordance with the NPDES permitting process as described in COMAR 26.08.04.

C. Criteria for Toxic Substances. The criteria for toxic substances in ambient water are found in COMAR 26.08.02.03-----.03-3.

D. Applicability to Dischargers.

(1) Dischargers Required to Conduct Monitoring for Toxic Substances. The Department shall require any permittee who has a discharge that falls into one of the following categories to perform biological or chemical monitoring for toxic substances:

(a) A POTW with a pretreatment program established in accordance with COMAR 26.08.08;

(b) An industrial discharger or POTW treatment plant with a wastewater flow greater than or equal to 1,000,000 gallons per day;

(c) A discharger whose discharge has demonstrated actual or potential toxicity; or

(d) A discharger whose discharge the Department has reason to believe may cause toxicity as determined by an evaluation of manufacturing processes, indirect discharges, treatment processes, effluent or receiving water data, or other relevant information.

(2) NPDES Permit Monitoring Requirements.

(a) A discharger identified in § D(1) of this regulation shall have requirements for toxic substance monitoring included in its permit at the time of permit issuance or reissuance.

(b) Modifications to these requirements may be allowed on a case-by-case basis if the:

(i) Specific conditions of the discharge suggest that a full scale toxics monitoring program is not necessary; or

(ii) Characteristics of the receiving water indicate that a full scale toxics monitoring program is not needed.

(c) Data submitted under any previous toxic substance monitoring program may be used to satisfy these requirements if the data is indicative of the current process and treatment conditions.

(d) Any toxic substance monitoring, including test protocols, shall be approved by the Department before initiation of the testing. All data generated shall be within the quality assurance and quality control specifications of the test protocol.

(e) Measurements below the minimum level may be reported as BML (below minimum level).

(f) If the Department determines through the monitoring described in § D(1) that a discharge causes or has the potential to cause the discharge of toxic substances or an impact on surface waters, the Department may modify the discharge permit to require the discharger to collect data to verify or rule out the existence of an impact from a toxic substance.

E. Technology-Based Whole Effluent Toxicity Testing Requirements.

(1) Purpose. Acute and chronic biotoxicity testing of effluents is used by the Department to assess the potential for acute and chronic toxicity in wastewater discharges.

(2) Permittee Responsibility. A finding of no toxicity in the effluent does not relieve the permittee from the obligation to provide best available treatment technology or to comply with water quality standards for conventional and toxic substances.

(3) Testing Required. The Department shall require biotoxicity testing in all new or renewed discharge permits for permittees identified in § D of this regulation.

(4) Acute Whole Effluent Toxicity.

(a) For the purpose of this subsection, an effluent is acutely toxic when the LC[50] value resulting from the first 48 hours of a valid acute or chronic toxicity test is less than or equal to 100 percent effluent. LC[50] means the effluent concentration at which 50 percent of the organisms die or are immobilized during the test.

(b) Each test shall be conducted using at least two species, one vertebrate and one invertebrate, as specified by the Department. Each test shall be conducted in accordance with the procedures specified by the Department.

(c) Unless otherwise specified in an existing permit, if the results for the first 48 hours of any two consecutive valid acute or chronic toxicity tests conducted within any 12-month period show acute toxicity under § E(4)(a) of this regulation, the permittee shall repeat the test within 30 days to confirm the finding of acute toxicity.

(d) One toxicity test shall be differentiated from another by the date on which the effluent was sampled, not by the number of species tested.

(e) If acute toxicity is confirmed, the permittee shall:

(i) Eliminate the source of toxicity through operational changes; or

(ii) Perform a toxicity reduction evaluation as specified within a defined compliance schedule.

(f) If the permittee repeats toxicity testing under § E(4)(c) of this regulation and the results for the first 48 hours of the repeat test do not show acute toxicity, the Department will require the permittee to repeat toxicity testing as specified in the permit.

(5) De Minimus Discharges. For categories, other than those identified in § D(1) of this regulation, of similar discharges that individually or cumulatively will have a de minimus impact on water quality, the Department may permit testing of representative discharges instead of requiring each permittee to test its effluent for whole effluent toxicity. In these circumstances, the Department shall impose conditions on the permittees relieved of the burden of whole effluent toxicity testing, to ensure that their effluents remain similar to those of the tested permittees.

## 26.08.03.08 Remining.

A. Purpose. This regulation establishes the criteria under which the Department shall determine:

(1) That an application for a coal remining NPDES permit has the potential to improve water quality as required under §301 of the Federal Water Pollution Control Act (33 U.S.C. §1311);

(2) If an applicant for an NPDES permit to discharge pollutants from coal remining qualifies for a variance from the State water quality standards; and

(3) The appropriate effluent limitations for pH, iron, and manganese and other requirements in any NPDES permit issued for coal remining at a specific site.

B. Application for NPDES Coal Remining Permit.

(1) Application Requirements. The applicant shall comply with all permit application requirements as set forth in COMAR 26.08.04.

(2) Required Documentation. The applicant shall:

(a) Submit documentation from the Bureau of Mines that the proposed coal remining operation will be located on a remined area;

(b) Certify that the proposed coal remining operation will be confined to the remined area;

(c) Submit the application for a remining permit from the Bureau of Mines;

(d) Describe the hydrologic balance for the proposed coal remining operation, including results of a detailed water quality and quantity monitoring program conducted in accordance with §B(4) of this regulation;

(e) Submit plans, cross sections, and schematic drawings describing the techniques for handling acid-forming materials to reduce the discharge of acidity, iron, and manganese;

(f) Submit a description and an explanation of the range of abatement levels that probably can be achieved, costs, and each step proposed to reduce the discharge of acidity, iron, and manganese;

(g) Submit a description of the spoil-handling practices necessary to reduce the discharge of acidity, iron, and manganese;

(h) Submit a detailed topographic map of the proposed coal remining operation, including the locations of the preexisting and proposed discharges; and

(i) Continue the water quality and quantity monitoring program described in §B(4) of this regulation on a quarterly basis, and submit the results to the Department on a quarterly basis until the Department makes a final permit decision.

(3) When any of the information required in §B(2)(d)-----(h) of this regulation is contained in the information included as part of §B(2)(c), the applicant does not need to provide separate documentation.

(4) Baseline Sampling Data.

(a) The baseline sampling data is derived by sampling and analysis of all preexisting discharges from the coal remining area and in-stream water quality upstream and downstream of the proposed coal remining site. The data shall be collected in a detailed water quality and quantity monitoring program which includes the requirements listed below and has been approved by the Department.

(b) Sampling points should be established at convenient locations as near to the source as possible. Sampling points shall be established through an on-site visit by the Maryland Department of the Environment permit writer and the applicant. In the event of disagreement concerning the location of the sample site, the final decision shall be made by the Department.

(c) When flows from preexisting multiple effluent discharges converge at convenient sampling points, composite sampling and analysis may be appropriate.

(d) Each sample shall be measured for flow (million gallons/day) and analyzed for the best professional judgement (BPJ) parameters of acidity (milligrams/liter), iron (milligrams/liter) and manganese (milligrams/liter). Iron and manganese concentrations shall be in terms of total metal concentrations.

(e) In addition to the BPJ parameters discussed above, the baseline sampling and analysis data shall include an analysis for parameters including pH, total suspended solids (milligrams/liter), alkalinity (milligrams/liter), specific conductance (millemhos/centimeter), and sulfates (milligrams/liter) for surface water.

(f) Sampling shall occur, at a minimum, over a 12-month period, with samples being taken monthly at regular intervals (for example, every first Monday, or the 15th of each month) from both the effluent discharge and in-stream sampling sites. The 12 sampling and analysis events shall constitute the minimum baseline sampling data.

(5) Common Treatment Facilities.

(a) If the applicant proposes to use common facilities to manage stormwater and remining flows, the applicant shall include in the applicant's application:

(i) The location of each common facility;

(ii) The source and volume of each discharge entering the common facility; and

(iii) Any other information the Department may require.

(b) The applicant may not use a common facility to manage remining and stormwater flows without the written consent of the Department.

C. Issuance of NPDES Coal Remining Permit.

(1) Prohibitions. The Department may not issue an NPDES permit for a coal remining activity unless:

(a) The applicant has applied for a coal remining permit from the Bureau of Mines;

(b) The coal remining operation is located on a site on which coal mining was conducted before August 3, 1977;

(c) The applicant demonstrates to the satisfaction of the Department that the mining and reclamation procedures proposed for the site of the coal remining operation have the potential to improve water quality in the preexisting discharges based on a hydrologic reclamation plan and a probable hydrologic consequences statement;

(d) The Department determines, based on the proposed hydrologic reclamation plan, that the coal remining activity is not likely to cause discharges of pH, iron, or manganese which exceed the levels established as the baseline loading in the preexisting discharges at the site before the coal remining operation began; and

(e) The information provided in the application is adequate for the Department to make an informed final permit decision.

(2) Best Professional Judgement (BPJ) Limits for pH, Iron, and Manganese. When the Department issues an NPDES permit to discharge pollutants from a coal remining operation based upon the variance to State water quality standards described under COMAR 26.08.02, the water quality-based effluent limitations for pH, iron, and manganese shall be established on a case-by-case basis.

Compliance with those effluent limitations constitutes compliance with those water quality criteria for pH, iron, and manganese set forth in COMAR 26.08.02.

(3) Best Professional Judgement Limits (BPJ) Derivation. The modified effluent limits shall be derived through a BPJ methodology developed by the Department.

(4) Permit Release Limit. This limit is derived by calculating the cumulative loading rate in tons/year of acidity, iron, and manganese from each concentration value and flow rate in the baseline data for the entire coal remining site. The cumulative loading rates for each parameter are summed and divided by the number of samples analyzed. This number is multiplied by 365 to establish the annual cumulative baseline loading rate for each parameter.

D. Monitoring.

(1) Monitoring at the coal remining operation may be discontinued after the sampling required by §B(4) of this regulation is completed. The monitoring shall begin again, in accordance with the NPDES coal remining permit, upon initiation of remining operations.

(2) During the coal remining operation, monitoring of the parameters established in §B(4)(d) of this regulation shall be conducted at least quarterly for the ambient in-stream stations.

(3) During the coal remining operation, monitoring for all effluent discharges shall be conducted at least monthly for pH, iron, manganese, acidity, and total suspended solids.

(4) The permittee shall submit the compliance monitoring data to the Department at least quarterly in the manner and form required by the Department.

E. Newly Discovered Discharges. An applicant with an existing coal remining operation seeking an NPDES permit modification from the Department under COMAR 26.08.04 to accommodate a newly discovered discharge shall demonstrate to the satisfaction of the Department that the applicant:

(1) Discovered discharges within the proposed coal remining area after the applicant's NPDES permit was issued; and

(2) Has not caused or contributed to the discharges.

F. Final Monitoring.

(1) Upon completion of the coal remining activity and before release from permit obligations, the permittee shall:

(a) Demonstrate that the annual cumulative baseline loading set forth in the NPDES permit has not been exceeded, and that the water quality discharged from the site has been improved; and

(b) Compile the water quality information into a final report which shall analyze the data and document any changes in water quality in the stream.

(2) The demonstration required in §F(1)(a) of this regulation shall be based on 1 year of monthly sampling and analyses of untreated discharge collected in the second year following the completion of reclamation and revegetation, and shall be calculated in accordance with §C(4) of this regulation.

(3) Failure to demonstrate that the water quality from the site has improved shall constitute a violation requiring corrective action.

## *Administrative History*

### Effective date: September 1, 1974 (1:1 Md. R. 33)

**COMAR 10.50.01.05, .06, and .13 recodified to COMAR 26.08.03.01, .02, and .03, respectively**

**Regulation .01 amended effective November 5, 1984 (11:22 Md. R. 1899)**

**Regulation .02 amended effective November 5, 1984 (11:22 Md. R. 1899)**

**Regulation .02C amended effective May 18, 1979 (6:10 Md. R. 841)**

**Regulation .03 adopted effective May 19, 1978 (5:10 Md. R. 777)**

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**Chapter revised effective June 27, 1988 (15:13 Md. R. 1556)**

**Regulation .01 amended affective May 27, 2002 (29:10 Md. R. 827)**

**Regulation .01B amended affective April 16, 1990 (17:7 Md. R. 854)**

**Regulation .02 amended effective April 16, 1990 (17:7 Md. R. 854)**

**Regulations .03—.05 repealed and new Regulations .03—.05 adopted effective February 19, 1990 (17:3 Md. R. 301)**

**Regulation .03C amended affective July 5, 2004 (31:13 Md. R. 995)**

**Regulation .06 adopted effective May 1, 1989 (16:8 Md. R. 911)**

**Regulation .06 amended effective November 6, 1995 (22:22 Md. R. 1670)**

**Regulation .06B, C amended effective April 16, 1990 (17:7 Md. R. 854)**

**Regulation .06D amended effective March 25, 1996 (23:6 Md. R. 477)**

**Regulation .07 adopted effective April 16, 1990 (17:7 Md. R. 854)**

**Regulation .07 amended effective June 7, 1993 (20:11 Md. R. 917)**

**Regulation .08 adopted effective January 2, 1995 (21:26 Md. R. 2195)**

**Regulation .08 amended effective June 29, 1998 (25:13 Md. R. 996)**